SMART Air Hood™ Balancing Instrument | FAQ's

1. Why should I buy a SMART Air Hood™?

The **SERIES SAH** SMART Air Hood™ Balancing Instrument is the most accurate and easy to operate air flow hood on the market. By using the included hood stand and wireless communications to the handheld, a single operator can balance a branch in less time than traditional balancing teams. Besides being lighter than most traditional capture hoods, the ergonomic design makes the Series SAH easy to maneuver, with less physical stress. The rugged polypropylene base hood features patented Quad Flow Design Technology for controlling air flow and minimizing back pressure, which yields superior measurement accuracy. The Wi-Fi direct communication gives reliable communication with a distance of up to 200 yards between the hood and the handheld test instrument.

2. What is Predictive Balancing?

The current industry method of balancing is commonly referred to as proportional balancing. Proportional balancing determines the flow between each terminal and the key. The key flow changes with each adjustment of any given terminal, so the balancing technician must estimate a flow for the terminal and adjust the key and the terminal until the correct proportion is achieved.

The SMART Air Hood™ is designed to provide Predictive Balancing™, an industry first for air flow balancing. Predictive balancing guides the balancing technician on where to go to set the proper flow for each register allowing the system to be fully optimized. The SMART Air Hood™ Balancing Instrument includes the PredictAir™ Application Software which reduces the number of steps in the air flow balancing process using Predictive Balancing's Express Balance mode. Predictive Balancing is a method of predicting the optimal flow set point for each register and the order in which they should be adjusted.

3. What is Quad Flow?

Traditional industry cone shaped air flow hoods experience two main problems when measuring flow registers; poor accuracy of flow readings and back pressure compensation. These factors contribute to wasted energy and poor performance. Dwyer's patent pending, state of the art, Quad Flow Design concept is based on controlling the recirculating air patterns that can create back pressure effects, while mixing the flow more evenly and efficiently. This well mixed flow for velocity sampling leads to superior measurement accuracy.

4. In what applications can I use the SMART Air Hood™?

Primary applications include commissioning, testing, adjusting and balancing volumetric air flow from diffusers, grilles, and registers in HVAC systems.

5. Where do I send the SMART Air Hood to be calibrated?

Recalibration of the SMART Air Hood™ is fast and easy. Dwyer recommends recalibrating the Hood, at a minimum, once a year to ensure maximum performance. When it is time for recalibration, simply detach, by unclipping the clamps on all four sides, the four Quad Flow Sensing Grids along with the Sensor Module. The Quad Flow Sensing Grids and Sensor Module need to be calibrated together. For your convenience, Dwyer includes with each purchase of a SMART Air Hood™ a custom return calibration package specifically designed for the four Quad Flow Sensing Grids and Sensor Module. To ensure no downtime, you can purchase a new set of four calibrated Quad Flow Sensing Grids and Sensor Module, model A-SAH-CK part number 100765-09, ready to install on the jobsite. You can return the original four Quad Flow Sensing Grids and Sensor Module in the custom return package to Dwyer using our RMA process or to any authorized Dwyer calibration service company. Once The Quad Flow Sensing Grids and Sensor Module are calibrated, they will be returned as a set back to you, ready to install on your SMART Air Hood™.

6. What is the warranty?

The SMART Air Hood™ has a 1 year warranty.

7. What is the price?

For the current list price, please check our website www.dwyer-inst.com.

8. Where can I purchase the SMART Air Hood™?

The SAH can be purchased through authorized Dwyer distributors, authorized manufacturer representatives or on-line direct from Dwyer at www.dwyer-inst.com.

DWYER INSTRUMENTS, INC.
T: 219-879-8000 | F: 219-872-9057 | info@dwyermail.com
800-872-9141

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9. Is a protective case provided for the SMART Air Hood™?

Yes, the SMART Air Hood™ is shipped in a protective travel case as standard. The price is included, there is no extra charge.

10. How much does it weigh and what are the dimensions?

Dwyer's SMART Air Hood™ is a revolutionary crate design made from a rugged polymer construction. The lightweight design represents the smallest and most aerodynamic design the industry has ever seen. The SMART Air Hood™ weighs less than 6 pounds and ¼ the height of current industry air hoods at 24˝x24˝x12˝.

11. Can it be shipped as air freight to the job?

Yes. The SMART Air Hood™ is shipped with a protective carrying case durable enough to be shipped air freight. Please note that there are shipping restrictions for lithium batteries; consult your carrier prior to shipping.

12. What is the range of the handheld device that comes with the SAH?

The SAH uses Wi-Fi Direct for communications. Wi-Fi Direct allows the SMART Air Hood™ to create a Wi-Fi connection directly to the Dwyer handheld instrument. There is no need for additional equipment needed, like a router. The range is up to 200 yards.

13. Can I store my results for future reference?

Yes, the SMART Air Hood™ mobile meter includes job based logging that will track the entire balancing process from beginning to end including a balance summary that shows the actual final flow at each register and the deviation from target. Each branch is considered a job. All of the registers for a job can be setup ahead of time and distributed prior to performing the balance. Setup and modifications to the setup can also be done onsite. Jobs can be paused and resumed allowing for additional activities, breaks, maintenance, without disrupting the balancing process.

14. Can the SMART Air Hood™ accommodate various size diffusers?

Yes, various size canvas hoods with an adaptor are available as accessories for the SAH Consult the Dwyer Instruments website, www.dwyer-inst.com for details.

15. What type of battery is in the SMART Air Hood™?

The SMART Air Hood™ operates with a NCR 18650B MH12210 lithium ion rechargeable battery, 3.6v. In addition, 4 AA batteries can be used as backup so the SMART Air Hood™ is always available for use.

16. Where do I go for help on how to use the SMART Air Hood™?

The Dwyer website is an excellent source for product information. Videos are available illustrating the SMART Air Hood™ features and benefits as well as how to use for balancing. In addition to the Dwyer website, the Dwyer Technical Support Team is available to take your phone calls and assist with questions. Please visit www.dwyer-inst.com for contact information and technical support on the SMART Air Hood™.

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